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**ADDENDUM TO SITE OPERATIONS PLAN
NATIONAL GYPSUM COMPANY
(Millington, Great Swamp, 257 New Vernon Road
and White Bridge Road Sites)**

Prepared By:

**Fred C. Hart Associates Inc.
530 Fifth Avenue
New York, New York 10036**

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INTRODUCTION

Fred C. Hart Associates, Inc. (HART) has been retained by National Gypsum Company of Dallas, Texas and is currently engaged in a Remedial Investigation (RI) in and around Millington, NJ. This investigation has been implemented pursuant to CERCLA Administrative Order - 50103 between National Gypsum Company and the United States Environmental Protection Agency (USEPA) under the National Superfund Program.

As part of the Remedial Investigation, a groundwater monitoring network was installed at a site (designated Site A, Figure 1) within the Great Swamp National Wildlife Refuge. Prior to the installation of this monitoring network, a metal detection survey was conducted by HART personnel during preliminary subsurface site characterization. Findings of this preliminary survey, (Figure 2), indicate that there are a number of locations concentrated within this area with underlying metal objects.

At this point, the nature of these objects has not been determined. Discussions with refuge personnel have revealed that drums may be present on the site. The existence of rusted drums located on the surface in the vicinity of the site also points to the possibility of drummed waste at this location. Prior to the finalization of the RI report, full site characterizations are required in order to develop accurate endangerment assessments and feasibility studies.

Based on these findings, HART proposes to investigate further the subsurface of Site A within the Great Swamp National Wildlife Refuge prior to the submittal of the RI report. Details of this task are described below.

Purpose

The purpose of this investigation is to characterize further the subsurface conditions at Site A within the Great Swamp National Wildlife Refuge. Specifically, the investigation will focus on the presence of

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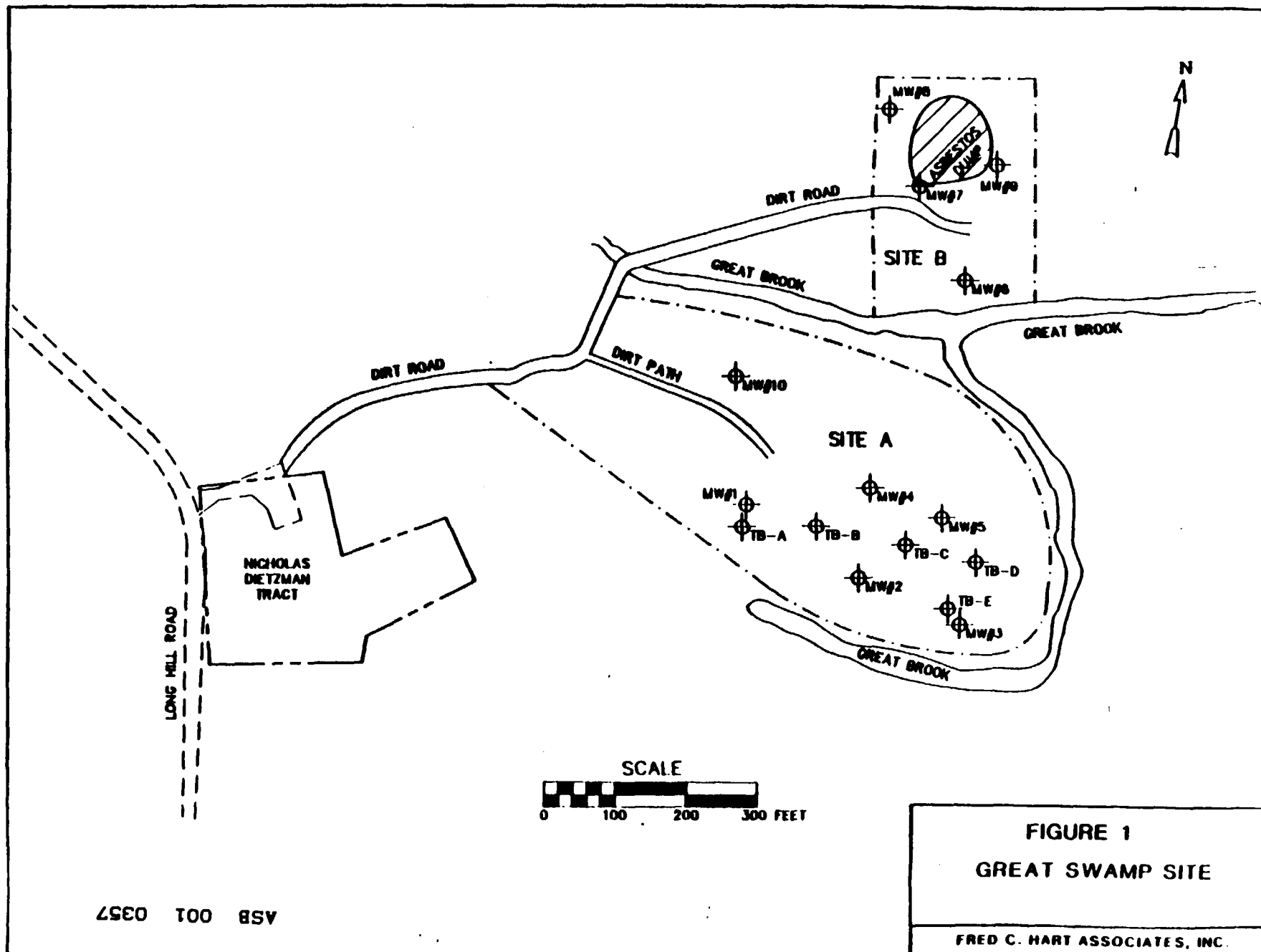
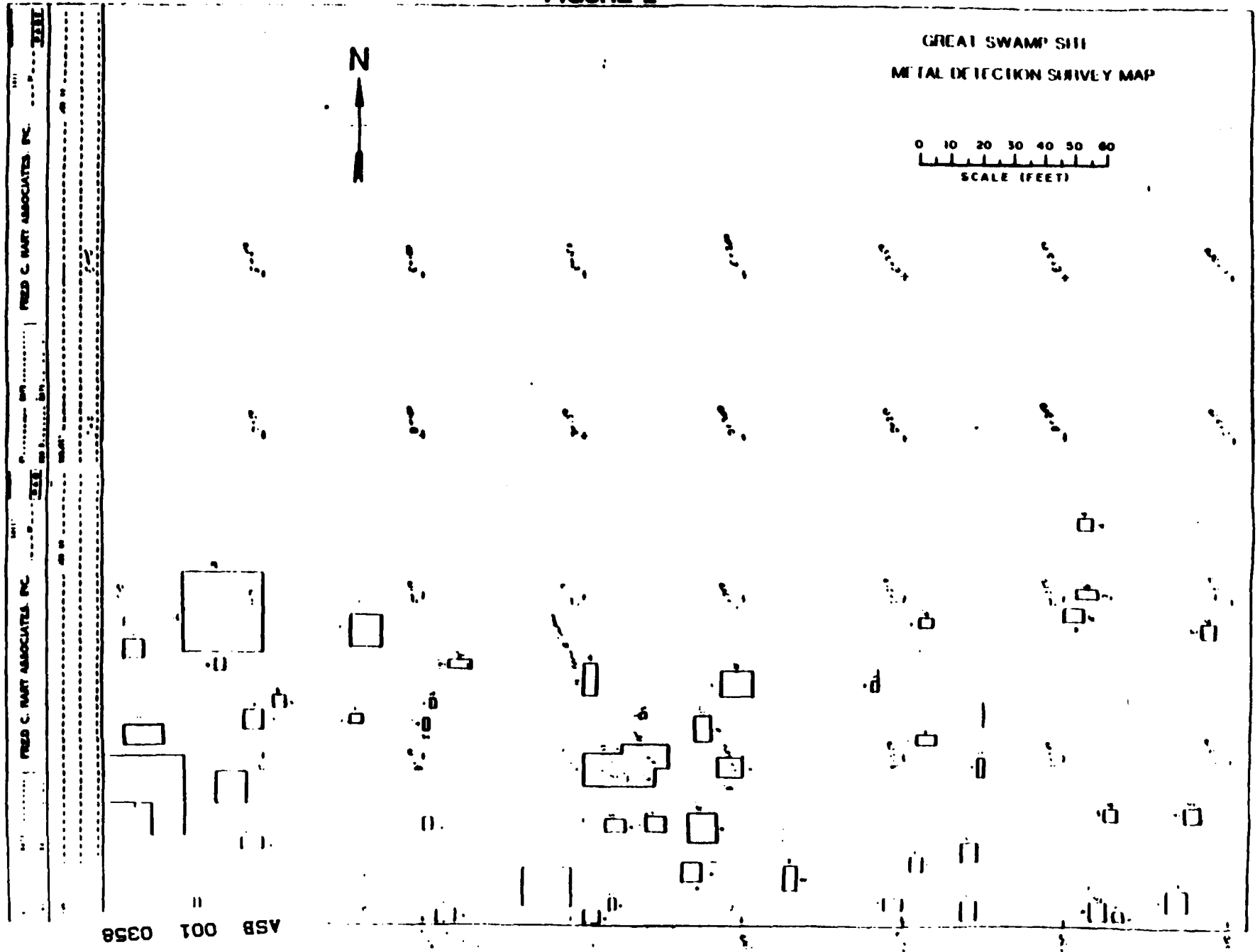


FIGURE 2



buried drums and a representative characterization of their waste materials. Also, data collected during this task will be evaluated and employed during the endangerment assessment and feasibility study.

Procedure

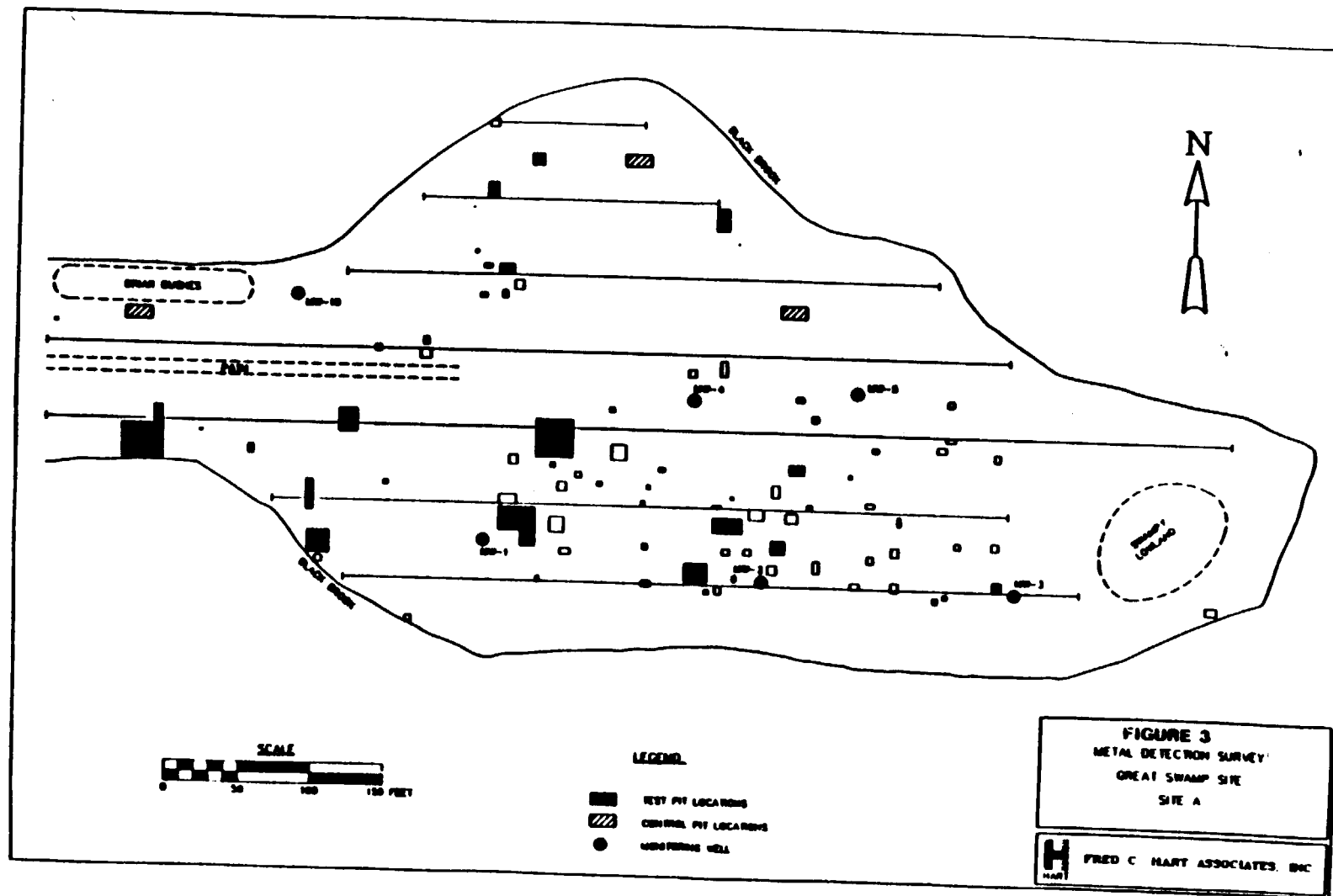
The first phase of this study will consist of surveying the entire area within Site A with a metal detector in an effort to locate prospective drum locations. This task will be accomplished by first constructing a surveying grid based upon 50 feet centers. A Pollard Model TW-5 metal detector will be employed to locate the metal. Data collected during the metal detection survey will be plotted on a base map and utilized to select test pit locations. Grid construction and metal detection surveying will be performed by HART personnel.

Following the completion of the metal detection survey, HART will meet with representatives of the U.S. Environmental Protection Agency (USEPA) and New Jersey Department of Environmental Protection (NJDEP) to determine the actual test pit locations. Control pits may be constructed in locations where metal was not detected, at the discretion of the HART on-site coordinator and EPA representatives. Anticipated test pits and control pits are provided in Figure 3. Test pits will be constructed using a rubber tire backhoe with bucket teeth removed. All test pits will be logged by a HART field geologist who will keep a complete description of materials encountered and observations in the field test pit log.

In the event that buried drums are located, HART and its subcontractor Environmental Site Restoration (ENSITE) in coordination with representatives of the USEPA and NJDEP, will determine which drums are of suitable integrity to be removed and sampled. Drums will be recovered with a backhoe which will be equipped with an enclosed, explosion-proof cab and a separate air supply source. The excavation and drum sampling will be performed in Level B protection. The equipment operator will be careful when digging for drums to keep from puncturing a drum unexpectedly. Upon discovery of a drum, the operator will isolate the drum in order for ENSITE personnel to attach a drum sling around the drum. If this is not

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possible or safety conscious, then technicians will carefully dig around the drums with hand tools in order to attach a drum sling to remove the drum from the excavated area.

After removing the drum from the test pit, it will be sampled with a clean drum thief. A drum thief is a hollow glass tube that is inserted into the drum through the bung and allowed to fill with the drummed content. The drum thief is then removed and used to fill laboratory supplied glassware. If a drum should have to be punctured, a ground wire will be attached to the drum to prevent static electricity and a punch attachment on the backhoe will be utilized. Sampling will be documented with a complete sampling log. Pictures of every excavated drum will also be taken.

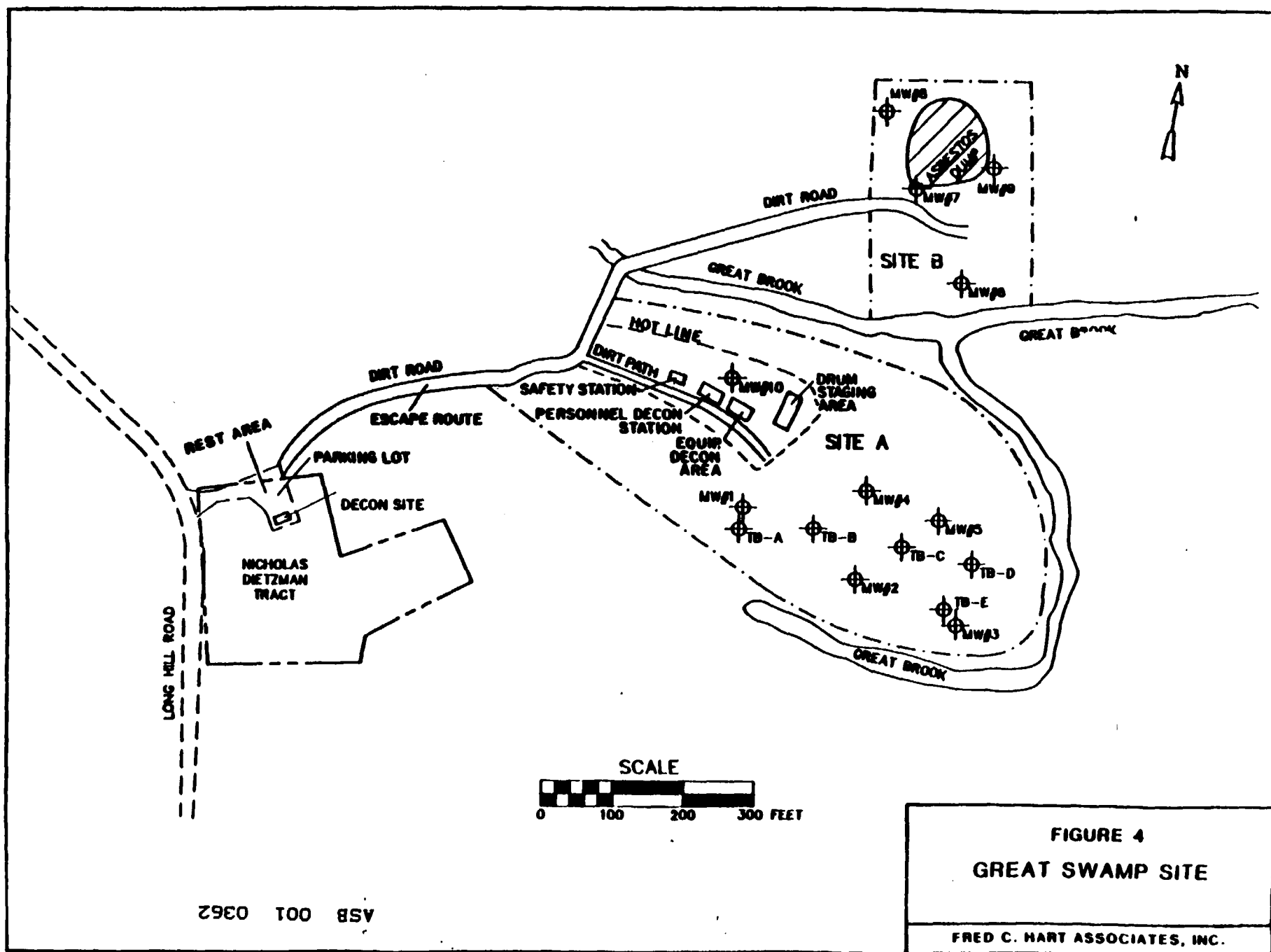
Immediately following the sampling, each drum will be overpacked, labeled and placed in the staging area which will be bermed and lined with a heavy 20 mil liner to contain any discharge in the event of contaminant release. In addition, the staging area will be surrounded by a six-foot fence outside the berms to protect the drums from vandalism and curious wildlife. The fence and drums will be well-labeled to inform the public about the staging area.

The test pits will be backfilled with on-site fill following their completion. Additional clean fill will also be available to backfill those test pits from which buried drums are removed. These test pits will be filled with clean fill at the bottom and then covered with the removed asbestos fill material.

When all sampling and staging activity is completed, all contaminated equipment will be decontaminated with Trisodium Phosphate and water at the decontamination area within Site A (Figure 4). Final decontamination will occur at the decontamination area in the parking lot (Figure 4). All decontamination water will be drummed and sampled to determine proper disposal methods. Care will be taken to minimize decontamination water to reduce future disposal. Upon tearing down the site, special attention

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will be taken to thoroughly police for materials and trash due to the sensitivity of the site.

The samples will be properly labeled and packed as hazardous material and sent in compliance with DOT regulations to Wadsworth Alert Laboratory in Canton, Ohio for analysis. All drum samples will be analyzed for the parameters listed in Table 1. Following the receipt of laboratory analyses, HART will provide a disposal plan to USEPA for approval.

Test pit construction, drum removal, sampling, and disposal will be performed by Ensite of Tucker, Georgia. Health and safety procedures are provided in Attachment 1. All field work will be conducted in Level B protection. An Organic Vapor Analyzer (OVA), explosimeter and an oxygen meter will be employed during the field effort as part of the health and safety procedures. These instruments will be utilized by technicians stationed in the immediate vicinity of the test pits. Specifically, the OVA will be utilized at the exclusion zone perimeter (an area of 50 foot radius from the test pits), during drum sampling, and in the breathing zone at the test pits. The explosimeter and oxygen meter will be used during test pit excavation.

A hotline will also be established at Site A to ensure safety of all personnel. Once personnel cross the hotline, they will undergo full decontamination in the personnel decontamination area. This decontamination procedure will consist of an Trisodium Phosphate and water rinse followed by a water wash of all gloves, boots and outer protective clothing. All disposal protective clothing will be drummed for proper disposal.

TABLE 1

Waste Characterization

Total Cyanide and Sulfides

Flashpoint

Compatibility

Ignitability

EP Toxicity

pH

Priority Metals

13 metals

HEX chrome

Phenols

Priority Pollutants - Peaks

Pesticides

Volatile Organics

Acids

Base Neutrals

PCBs

EPA Method - 624, 625 - Liquids

- Includes tentative ID of compounds and concentrations

Note: For solid materials - EPA method SW846 which is a preface for 8240, 8270 and 8080 will be used.

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ATTACHMENT 1
SITE SAFETY PLAN

I. General Information

- A. Project Name: National Gypsum Drum Excavation
- B. Location: Great Swamp Site
- C. Project Number: 01005-00-85001-41

II. Project Organization.

- A. Project Manager: Tom Morahan (HART)
- B. Operations Supervisor: Ron Hill (ENSITE)
- C. Site Health & Safety Officer: Francie Barker (HART)
- D. Field Tech: Aaron Levy (HART)
- E. Field Geologist: Steve Hambos (HART)
- F. Technicians: Jeff Arrowood (ENSITE), Sal Garland (ENSITE)
- G. Operators: Dickey Sewell, Jackie Corman (ENSITE)

III. Site Safety Plan Preparation

- A. Prepared by & Date: Steve Hambos 2/11/87
- B. Reviewed by & Date: Ronnie D. Hill 2/12/87

IV. Site History & Description

- A. Type of Site:
 - Spill Hazardous Waste Site X
 - Transportation Accident Other (specify)

Site Description: Three acre field that is part of the Great Swamp National Wildlife Refuge.

- B. Previous Activities Performed On-Site: Test borings, monitoring well installation, metal detection survey.

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C. Unusual Site Features or Physical Hazards: Dips in the land.

D. Results of Previous Surveys (attach): Discussed in accompanying addendum.

E. Waste Types:

Liquid X Solid X Sludge Gas/Vapors

F. Hazardous Characteristics:

Toxic X Flammable/Volatile X Reactive
Radioactive Corrosive Ignitable
Biological Agent

G. Hazardous Materials (Known or Suspected):

The following compounds were detected in the soil boring samples:

Substance	Flammable	Explosive	Shock Sensitive	Flashpoint	LEL%
Methylene Chloride	-	-	-	12°F	
Trichloro Fluoromethane	-	-	-	X	
Chloroform	-	-	-	X	
Benzene	X	-	-		1.3%
Toluene	X	-	-		1.3%
DDT	-	-	-	-	
Diethyl Phthalate	not available			325°F	

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H. Toxicity: <u>Substance</u>	<u>PEL/TLV</u>	<u>IDLH</u>
Methylene Chloride	(100)	5,000 ppm
Trichloro-fluoromethane	C 1000	10,000 ppm
Chloroform	10	1,000 ppm
Benzene	10	2,000 ppm
Toluene	100	2,000 ppm
DDT	--	CA
Diethyl Phthalate	5 mg/m ³	Not available

I. Physical Hazards:

Heat Cold X Noise Radiation
 Other (specify)
 Comments:

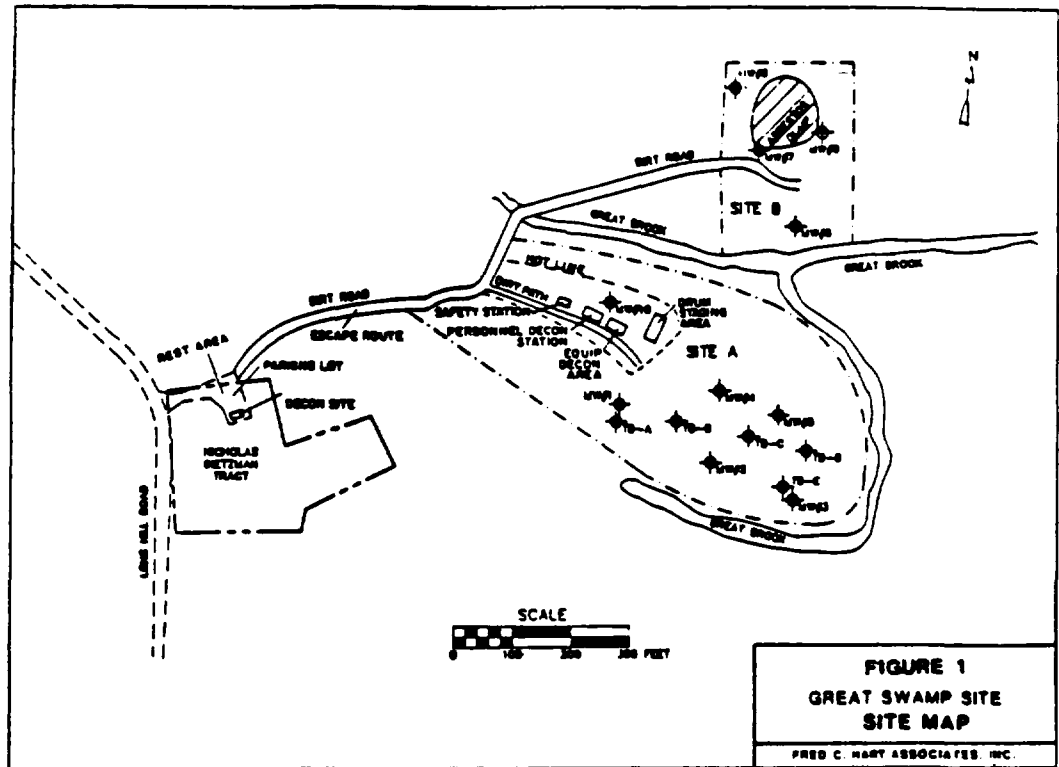
J. Weather: 30° - 40°F

V. Site Organization and Control

- A. Work areas identified: Yes. see
- B. Decontamination areas identified: Yes. sketch
- C. Support area established: Yes. map
- D. Site security established: No
- E. Entry and escape routes identified: Yes.
- F. Sketch of site available and attached: On following page

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Note:

The exclusion zone will be designated as the area extending in a 50 foot radius from the test pits.

The entrance and escape routes will be along the dirt road.

The work areas are scattered throughout Site A.

The first aid area will be in the safety station.

VI. Job Activities in Work Plan

A. Types of activities planned

1. Drum: Excavation X Sampling X Staging X
Treatment Disposal
2. Soil: Excavation Treatment Disposal
3. Water treatment: NA
4. Spill cleanup: NA
5. Well installation: NA
6. Other (specify): NA

B. Comments:

VII. Education and Training

- A. Site-specific training required: No
- B. Type of training: A health and safety orientation meeting will be conducted on the first day of field activities.

VIII. Medical Surveillance

- A. Special medical monitoring required: No
- B. Description:

IX. Ambient Air Monitoring

- A. Specific work requirements: An OVA will be used at the exclusion perimeters and breathing zone at each test pit every day. O₂ and explosimeter will be used at test pits when necessary.

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- B. Equipment requirements: Organic Vapor Analyzer (OVA), O₂ meter, Explosimeter.

X. Personnel Protection Requirements

- A. Job activity: Drum excavation/sampling/staging
Level: B
Personal equipment required: Chemical-resistant suits, PVC gloves, air line respirators, booties, hard hats
- B. Job activity:
Level:
Personal equipment required:
- C. Job activity:
Level:
Personal equipment required:

XI. Safety Equipment List

- A. First aid: Eye wash station, first-aid kits, emergency oxygen.
- B. Fire Fighting: Electrical and chemical type fire extinguishers.
- C. Communications (radios/signs): Two-way Radios, Horns.
- D. Personal Protective Equipment (SCBA, respirators/cartridges, suits, boots, gloves, hard hats, face shields, goggles, hearing protections, etc.): Provided on a separate list.
- E. Decontamination Equipment: Trisodium Phosphate, brushes, decon catch basin.

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F. Sanitation: Latrines Showers Handwashing X
Comments:

XII. Decontamination Procedures

- A. Work activities: Personal decon
Level of protection: C
Decontamination solutions: Trisodium Phosphate and water
Procedures (by station): All personnel exiting work area must pass thru decon. Personal clothing (gloves, boots, etc.) must be deconed.
- B. Work activities: Equipment decon
Level of protection: C
Decontamination solutions: Trisodium Phosphate and water
Procedures (by station): Equipment will be deconed at the equipment decon area. An initial wash with decon solution will be followed with high pressure rinse.

XIII. Contingency Plans

A. Local sources of assistance:

1. Hospital: (name): Overlook Hospital
(address): 183 Morris Ave., Summit, NJ
(phone): (201) 522-2000

Directions: Exit site and make a left onto New Vernon Road. Go right at Meyersville Road and follow onto RTE 78E. Take Route 78E to the Glenside Avenue exit and make a right at the stop sign. Go 2-3 miles and turn left on Morris Avenue. After passing the hospital, take the first right turn for one block and follow signs to the Emergency Entrance.

Travel time: 10 minutes

Travel route (map):

2. Ambulance (name and address): (201) 522-2000
Overlook Hospital Ambulance
183 Morris Avenue
Summit, NJ
3. Fire department (name and address): (201) 647-1800
Passaic County Fire Dept.
Summit, NJ
4. Police (name and address): (201) 647-1800
Passaic County Police Dept.
Summit, NJ
5. Site phone number: N/A

B. National or Regional Sources of Assistance

1. ENSITE 1-404-934-1180
2. EPA (Emergency Response) Region II . . 1-212-264-8674
3. HART 1-212-840-3990
4. Chemtrec (24 hours). 1-800-424-9300
5. Bureau of Explosives (24 hours). . . . 1-202-293-4048
(Association of American Railroads)
6. Communicative Disease Center 1-404-633-5313
7. National Response Center, NRC. 1-800-424-3802
(Oil/Hazardous Substances)
8. DOT, Office of Hazardous Operations. . 1-202-426-0656
9. U.S. Coast Guard 1-800-424-8802
(Major Incidents)
10. National Agricultural
Chemical Association 1-513-961-4300

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C. Special First Aid: NA

D. Evacuation Procedures: Exit through escape route.

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HEALTH AND SAFETY EQUIPMENT LIST

SCBA's
Tyvek Suits' with hoods
Saranac Suits
PVC Gloves
Surgical Gloves
Disposable Booties
Full Faced Respirators
HEPA Organic Vapor Cartridges
Safety Goggles
Cascade Manifold System
Air Line Hoses
Portable Eye Wash
Organic Vapor Analyzer
Explosimeter
Oxygen Meter
Fire Extinguishers
Dedicated Drum Thiefs
Portable 2-Way Radios
First Aid Kit
Hard Hats
Face Shields
Emergency Oxygen Kit
Non-Sparking Tool Set
Fencing
Duct Tape
20 mil Liner Material
Overpack Drums
Sorbant Pads
Trash Bags
Clean Fill
Pick-up Truck
Box Truck

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CONTINGENCY PLAN

The objective of the contingency plan is to minimize hazards to human health and the environment for fires, explosions or any unplanned releases of waste into the air, soil, or surface water that may occur during the field activities. In the event that a fire, spill or other emergency situation develops, the site safety officer will be the emergency coordinator responsible for coordinating all emergency response measures. This person has the authority to commit all resources necessary to carry out the contingency plan. The emergency coordinator will be Ms. Frances Barker. The alternate emergency coordinator will be Mr. Steve Hambos.

7. Implementation of Contingency Plan

In case of an emergency situation, the emergency coordinator has full authority to make the decision concerning the implementation of the contingency plan. Depending on the degree of seriousness, the following potential emergencies might call for the implementation of the contingency plan at Site A of the Great Swamp Site.

Spills. Spills of contamination from recovered drums and drummed contaminated water from decontamination sites will be absorbed with an absorbent, such as Speedy-Dri, and contaminated absorbent and soil will be drummed. Contaminated materials will be properly disposed.

Spills of fuels, hydraulic oils or other petroleum products will be cleaned up using absorbent, shovels and rakes. The spilled material will be placed in plastic bags, buckets and/or 55 gallon drums for transport and disposal. All fueling and maintenance of the equipment will be conducted at least 50 feet from rivers, streams, and ponds.

Flooding. If a flood should occur due to a heavy rainfall, the area will be evacuated immediately.

Release of Asbestos. During test pit excavation fibrous asbestos may be disturbed and become airborne. If this occurs, water will be used to wet the asbestos, thereby lowering the levels of asbestos in the air. As a contingency, mist applicators will be kept at the site during test pit excavations.

Fire/Explosion. This hazard is not expectant due to the nature of the materials anticipated to be encountered. But, as a contingency, fire extinguishers capable of handling chemical and electrical fires will be available onsite. In the event of fire or an explosion, all personnel will be evacuated and the local fire and police departments will be notified as well as staff members of the Great Swamp National Wildlife Refuge. Additionally, the local fire and police department will be notified of the commencement date of the test pit operations, so that they are adequately prepared for any emergency.

Emergency Response Procedures. In the event of a non-acute emergency, the procedures listed below will be followed.

1. Any employee discovering or causing a non-acute emergency situation must immediately contact the emergency coordinator.
2. The emergency coordinator will assess the situation and contact the appropriate personnel to respond to the emergency situation.
3. The emergency coordinator will take all necessary measures to contain the hazard and to prevent its spread to the environment and to adjacent homes.
4. Safety measures will be taken to ensure maximum protection of emergency personnel and will include the use of appropriate protection equipment.
5. All non-emergency personnel will be removed from the hazard area until the hazard has been contained and controlled.

6. Following containment and control of the emergency, the emergency coordinator will assess the situation to determine if all contaminated wastes generated by the emergency personnel have been collected and disposed on-site.
7. The emergency coordinator will ensure that all emergency equipment is restored to full operational status by the emergency personnel.
8. The emergency coordinator will investigate the cause of the emergency and will take steps to prevent the recurrence of such an incident.
9. The emergency coordinator will notify Morris County or Passaic County Health Department.
10. If necessary, the emergency coordinator will submit a written report of the incident to the Administrator of EPA Region II.